

Original article

# An Evaluation of the Quality of Care in Fertility and Infertility Services in Tripoli Health Centers

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## Abstract

Fertility and infertility services play an important role in healthcare, especially as more people delay having children, face unhealthy lifestyles, and deal with environmental pollution. This study aims to improve the quality of these services. The study focuses on making medical care safer and more effective, reducing errors, and improving the patient experience. It also seeks to boost success rates in fertility treatments, ensure fair access to reproductive healthcare, and offer physical and emotional support to patients. A cross-sectional study was carried out from October 2024 to April 2025. A questionnaire was given to 116 people using fertility and infertility services. The study examined service quality, accessibility, medical care, financial and emotional challenges, and overall satisfaction. The study found major barriers to accessing fertility services, with cost (57.76%) and waiting times (17.24%) being the biggest issues. Service quality was mostly rated as "good" (31.90%). Participants suggested making services more affordable (57.76%) and improving online access to information (44.83%). Addressing these barriers can lead to safer, more effective care, better treatment outcomes, and stronger emotional and physical support for patients. By prioritizing affordability, efficiency, and patient-centered care, fertility services can become more inclusive and effective for those in need.

**Keywords:** Infertility and Fertility Services, Medical Care.

## Introduction

Childbearing and childrearing are turning points in the life of every human being, strongly linked with the ultimate goals of wholeness, happiness, and integration into family [1]. Human life achieves wholeness through a child and realizes an individual's reproductive desire [1]. One of the most important and overlooked reproductive health problems in developing countries is the existence of high levels of infertility and childlessness [2]. Infertility is typically a couple's tragedy, which has an impact on the entire family and even the community at large [2]. In Libya, infertility services and treatments are an important part of healthcare, with many couples seeking medical help to fulfill their dream of having children [3]. Negative psychosocial effects of childlessness are widespread and usually severe [4]. Womanhood is often synonymous with motherhood in most cultures, and infertile women normally bear the onus for the couple's failure to have children [5]. Furthermore, without social security systems, the elderly financially depends on their children.

Infertility can either be a congenital disorder or one due to other health problems [1]. Infertility is diagnosed in a person who has failed to conceive after one year or more of trying to or has been experiencing repeated miscarriages [1]. Infertility affects men and women of all ages [6]. As per the NIH, about 9% of men and about 11% of women are of reproductive age experiencing infertility [7]. Such couples intending to have children but failing to do so naturally resort to treatment of infertility [8]. Some couples carry insurance coverage for their health for the payment of diagnosis and infertility treatment, while others pay cash for fertility treatment [8]. Psychological bonding is directly related to the quality of the marriage relationship [4]. In a marital relationship, in the absence of an infertility issue, however, the psychological bond between the couple deteriorates. This study aims to improve the quality of these services. The study focuses on making medical care safer and more effective, reducing errors, and improving the patient experience. The study focuses on making medical care safer and more effective, reducing errors, and improving the patient experience.

## Methods

### Study Design

A cross-sectional descriptive study was conducted on a total of 116 participants. The study was carried out in various regions of Tripoli, including Souq al Jum'aa, Fernaj, Ain Zara, Janzour, Tajoura, and Garbouli .

### Study Preparation

The study recruited participants who had obtained infertility and fertility services. Participants were randomly recruited in Tripoli from different parts of the city to reflect a representative sample. This diverse recruitment allowed for a thorough exploration of the various quality and accessibility of fertility-related healthcare services broadly across these areas.

### Study Setting

The study relied exclusively on an online questionnaire as the primary data collection tool. We requested that the people we selected (n=116) fill out questionnaires, which yielded their responses about infertility and experiences with fertility services. The questionnaire was divided into two sections, which consisted of 18 total questions. The first section of the questionnaire gathered information about the participants' personal information, such as age, gender, marital status, educational level, and medical history. The second section looked at participants' experiences with infertility and fertility services, collecting information on their experiences around access and satisfaction with medical care, emotional and financial costs, and satisfaction with fertility services overall.

### Target Group and Duration

The target group consisted of individuals who accessed infertility and fertility services. Data was collected through an online questionnaire during the period from October 2024 to April 2024.

### Data analysis

After collecting the data, the Excel program was used.

### Ethical Considerations

Informed consent was obtained from all participants prior to data collection. Participants were assured that their responses would remain confidential and be used strictly for research purposes.

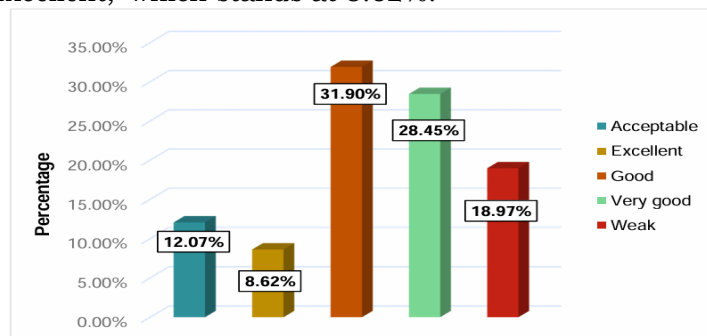
### Results

As shown in Table 1, the majority of participants are female, representing 82.76% of the total, while male participants make up 17.24%. The data shows that the highest percentage of participants falls in the 25 to 35 years old category (50.86%), followed by those aged 36 to 45 years (39.66%). Participants under 25 years represent 6.03%, while those above 45 years constitute the smallest group at 3.45%. The data shows that married participants represent the highest percentage at 98.28%, followed by both divorced and widowed participants at 0.86% each, making them the smallest groups.

**Table 1. Demographic data of participants**

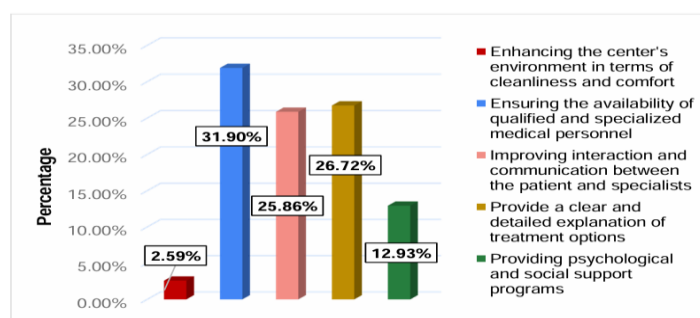
Variables	N(%)	
<b>Gender</b>	Female	96(82.76%)
	Male	20 (17.24%)
<b>Age</b>	>25 years	7(6.03%)
	25-35 years old	59(50.86%)
	36-45 years old	46(39.66%)
	>45 years old	4(3.45%)
<b>Marital status</b>	Married	114(98.28%)
	Divorced	1(0.86%)
	Widow	1(0.68%)

The data shows that the highest percentage of participants rated the category as good, 31.9%, followed by 'Very good' at 28.45%. The 'Weak' category accounts for 18.97%, while 'Acceptable' represents 12.07%. The lowest percentage is for 'Excellent,' which stands at 8.62%.



**Figure 1. The level of Services Provided**

The data shows that 'Ensuring the availability of qualified and specialized medical personnel' represents the highest percentage at 31.90%, followed by 'Providing a clear and detailed explanation of treatment options' at 26.72%, and 'Improving interaction and communication between the patient and specialists' at 25.86%. Meanwhile, 'Providing psychological and social support programs' account for 12.93%, and 'Enhancing the center's environment in terms of cleanliness and comfort' stands at 2.59%, making it the lowest percentage.



**Figure 2. Infertility and Fertility Centers Enhance the Patient Experience**

## Discussion

Infertility and fertility are important public health concerns at the couple and individual level, globally [9]. Infertility has been known to cause psychological distress, social stigma, and economic cost [4]. The information from this study shows that the majority of the respondents are females at 82.76% and male respondents at a mere 17.24%. This is in line with trends all over the world, where a higher proportion of women than men are going to be treated for infertility [4].

The age group distribution of participants indicates that the highest proportion is in the age range of 25 to 35 years (50.86%), followed by the age group 36 to 45 years (39.66%). This is in line with previous studies proving that fertility issues and treatment are highest among those aged in their early 20s to early 40s, since fertility decreases with age [10]. The participants aged under 25 years account for 6.03%, whereas those over 45 years are the lowest at 3.45%, which is in line with trends of biological decline in fertility [1].

Marital status is of utmost importance to fertility health-seeking behavior. The findings are that married respondents form the largest percentage (98.28%), and divorced and widowed respondents form 0.86% each. This indicates that the majority of infertility treatment is accessed by married couples, as supported by findings from studies that culture and social expectations compel married couples to fertility care [5].

According to the study, 100% of the respondents indicated experiencing fertility problems. This is a highly concentrated sample, probably made up of those who are undergoing treatment or therapy for infertility. Among these respondents, those with over three years of experience with fertility treatment make up the largest proportion (51.72%), followed by those with 1 to 3 years of experience (32.76%). Those with less than one year of experience make up the lowest proportion (15.52%). Previous research suggests that prolonged fertility treatments can lead to emotional and financial stress, affecting patients' persistence in seeking care [11].

When evaluating obstacles to fertility treatment, "High costs" was the most important reason, accounting for 57.76% of responses. This is consistent with evidence that has shown that the expense of assisted reproductive technologies (ART) is an important problem for patients with infertility treatment [12]. "Long waiting times" were also emphasized (17.24%), as indicated by evidence that waiting for fertility services can increase patient distress [13]. The other issues that were listed include a "Lack of specialized centers" (10.34%), "Other reasons" (9.48%), and "Poor psychological support" (5.17%), representing the various hindrances that the patients go through while receiving fertility services.

The respondents were further requested to give possible solutions in order to advance the fertility services. The largest percentage (57.76%) concurred with "Reducing costs," showing the financial element of treating infertility. This is followed by "Improving the quality of care" (17.24%). At the same time, "Increasing specialized centers" and "Raising social awareness on infertility and fertility problems" were approved by 8.62% of participants, and "Providing psychological support" by the lowest quantity (7.76%). Such findings suggest that economic and psychological issues must be solved in fertility care [14].

In terms of sources of fertility information, "Internet and social networking sites" were most frequently cited (44.83%), followed by "Doctors/Specialists" (40.52%). This is consistent with evidence that online settings are becoming prime sources of health information, even though specialist guidance remains involved [15].

The opinions of respondents regarding how fertility services could be improved were also investigated through the survey. "Implementing modern technologies to improve efficiency in services" was most favored by 32.76%. "Improving speed of appointments and reducing waiting lists" and "Providing flexible treatment schedules according to patients' health and economic status" were both favored by 25.86%. The other ideas for improvement were "Providing extensive consultations according to patients' needs" (9.48%) and "Improving patient privacy and confidentiality" (6.03%). These are similarly the research priorities for optimizing patient-centered fertility care [16].

## Conclusion

The study highlights major challenges in infertility and fertility treatment, with high costs being the biggest

barrier. Other issues include long wait times, limited access to specialists, and insufficient psychological support. While some patients rated care quality as moderate, few considered it excellent, indicating a need for improvement. The findings call for systemic changes to make fertility care more affordable, accessible, and patient-focused.

### Conflicts of Interest

The authors declare no conflicts of interest.

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